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EMERY ROTH & SONS
850 THIRD AVENUE, NEW YORK, N. Y. 10022 (212) 753-1733

RICHARD ROTH, Sr., F. A. I. A.
HARRY J. HARMAN, A. I. A.
RICHARD ROTH, Jr., A. I. A., R. I. B. A.
JOSEPH H. SOLOMON, A. I. A.

JULIAN ROTH
ADMINISTRATION
ESTELLE BEAL
CONTROLLER
PHILIP MARTINES
CHIEF DRAFTSMAN

February 18, 1975

cc: GFT sent 2-19

Mr. Malcolm P. Levy
General Manager
World Trade Center Operations
Port Authority New York, New Jersey
1 World Trade Center
New York, New York 10047

RE: WORLD TRADE CENTER

Dear Mal:

In accordance with the instructions issued by the Port Authority at the start of the project, construction drawings for the World Trade Center were to conform with requirements of the Building Code of New York City, and any variations therefrom were to be called to the attention of the Port Authority for final decision and authorization. This procedure has been followed in production of the contract drawings and, with the exceptions authorized by the Port Authority noted below, the drawings are in accordance with the new Building Code adopted in December, 1968. The Building Department reviewed the tower drawings in 1968 and made six comments concerning the plans in relation to the old code. Specific answers noting how the drawings conformed to the new code with regard to these points were submitted to the Port Authority on March 21, 1968.

We were instructed by the Port Authority to deviate from code with respect to the following areas:

1. Omission of vents from closed shafts. Noted to the Port Authority by letter dated April 20, 1967.

2. Demising partitions to stop at suspended ceiling or bottom of truss instead of running from slab to slab. Noted to the Port Authority by letters dated November 9, 1967 and June 6, 1969 with response on December 12, 1967. Prior instruction on procedure from Port Authority dated January 26, 1966.

SENIOR ASSOCIATES: VICTOR GORLACH · FRED HALDEN · BERNARD KESSLER, A. I. A. · PHILIP ZINN, A. I. A.
ASSOCIATES: DOUGLAS FERNANDEZ · BEN GLADSTEIN · ROBERT S. GOLDBERG, R. A. · ARTHUR O. HECHT · JOHN LEOTTA
JOSEPH LoSCHIAVO, JR. · JOHN H. MILLER · SAL ORLANDO · VICTOR C. SCALLO, A. I. A. · JOHN J. SECRETI, JR.

3. Omission of fire protected openings on exterior walls with separation of less than 30 feet. Noted to Port Authority by copy of letter to MYA dated January 26, 1966.

4. Treatment of concourse level as "Underground Street" noted by letter to the Port Authority on April 6, 1971, January 11, 1972 and May 7, 1973.

Fire detection and protection requirements specified for the World Trade Center meet or exceed Building Code requirements prior to the adoption of Local Law #5. Most other office towers in the City of New York meet the minimum code requirements:

A. Telephone system for Fire Department use connecting pump room and gravity tank room with all floors. A six inch gong provided at permanent telephone at pump room, first floor and gravity tank room. Telephone jacks at all other floors protected by break glass boxes.

B. Standpipe signalling device: an eight inch gong located in the pump room and every 10 floors in the elevator shaft; an approved closed circuit strap key enclosed in a sheet metal box at each telephone station for fire department use.

The Building Code permits the use of louvered doors on toilet rooms, janitor and electric closets located in 1 hour rated corridors. There is no size limit specified for the louver, but the Board of Standards and Appeals permits louvers of 2 square feet in 3/4 hour rated doors (which are required in 1 hour rated partitions). Up until about 1968 most office buildings had 1 hour minimum rated enclosures and louvered doors in telephone closets and sleeves or small slots through the floor. Since 1968, about 25 percent still have louvers in the doors. In more recent buildings the floor openings have been slabbed over.

Since corridor construction is required by code to be 1 hour rated, it follows that louvered doors were acceptable in tele-

phone closets. Corridor partitions in the Trade Center Towers, however, were designed to meet 2 hour rated construction at the request of the Port Authority, to forestall any problems with dead end limitations in the new code. It would require investigation of individual floor tenant layouts to determine if the dead end limitation of 50 feet for 1 hour construction has been exceeded.

The original contract drawings, dated 7/31/67 and the Contract Bid Sets dated 12/18/67 and 2/9/68 indicate 2 hour rated enclosures for the telephone closets with louvers in a FPSC, 1 1/2 hour label door. The hollow metal door specification written in 1967 and received by the Port Authority on 10/24/67 called for fusible link dampers on louvers in labeled doors. Letters to the Port Authority dated 8/23/67 and 9/6/67 indicated that variances had been obtained for omission of dampers and requested instruction regarding this advice. The requirement for dampers was deleted from the final draft of the specification reviewed by the P.A. in May, 1968. Requirement to meet provisions of underwriter's labs, B.S.A. and Building Department was retained, however, for doors with F.P.S.C. and hourly ratings.

Based on Port Authority comments on drawings received 4/17/69 and pursuant to a letter from the Port Authority to Tishman Construction Company dated 4/28/69 instructing that such changes be made, the wall of the telephone closet was changed to 1 hour rated construction on 5/23/69 and the door was changed to F.P. with a 1-1/2 hour rating. Since the telephone closet was no longer a shaft with a 2 hour rated enclosure, all floor openings left for future installation of cables had to be firestopped. This admonition was reiterated in a letter to the Port Authority dated June 25, 1973.

Please inform us if any additional information is desired.

Sincerely,

EMERY ROTH & SONS

Joseph H. Solomon

JOSEPH H. SOLOMON

JHS:am
CC: Mr.R. Monti, Chief Engineer/ PA

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